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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/325,508	06/03/1999	MICHAEL A. CHACK	P0056	2904

22503 7590 12/03/2002

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EXAMINER

THOMPSON, MARC D

ART UNIT PAPER NUMBER

2142

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/325,508

Applicant(s)

CHACK

Examiner

Marc Thompson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 10, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-32 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

1. Amendment A, received on 9/10/02, has been entered into record as Paper #3.
2. Claims 21-32 are currently pending.

Priority

3. This application claims priority to provisional application number 60/121,214, filed February 22, 1999. Thus, the effective filing date for the subject matter defined in the pending claims in this application is 2/22/1999.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foladare et al. (U.S. Patent Number 5,907,547), hereinafter referred to as Foladare, in view of Jin et al. (U.S. Patent Number 6,189,033), hereinafter referred to as Jin, further in view of Madduri (U.S. Patent Number 5,526,524), hereinafter referred to as Madduri, further in view of what would have been obvious to one of ordinary skill in the art at the time the invention was made.

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6. The disclosed and claimed invention details functionality which determines whether a given function (connection, software access, network service, etc.) is possible given the current system resources are available (idle/unused circuit or availability of port, socket, bandwidth, etc.), and when not available, the system will optionally wait until resources are available, and the request is queued for subsequent processing. At that time, the user/client/agent is polled/queried to determine whether the processing should occur/proceed. The requesting clients are connected via generalized network types to the serving computers, are time limited for response to the polling operation(s), and are optionally prioritized during the "queuing" process, as described in the dependent claims.

Foladare disclosed a system where Internet accessing clients effected connection(s) (telephone, Internet, etc.) between themselves and a remote server or human customer service representative. See inter alia, Abstract, Column 2, Lines 28-47. The requesting client was provided with a "notification applet", which informed the client when a special notification packet was received in order to report resources (i.e., the human representative, or network service server) became available. At this time, the client was given the option to respond to reception of the notification packet. See Column 2, Lines 10-27. If the client responded during some arbitrary, determined interval, the connection was effected, otherwise, failure to respond within this interval resulted in request cancellation. See Column 4, Lines 38-45. Foladare also envisioned multiple connections between the parties simultaneously, utilizing computer terminals (i.e., clients and server(s)) on each end of the communication. See Column 2, Lines 28-39, and

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Column 8, Lines 27-30. Foladare also disclosed use of the invention with the provision for access to network services, as opposed to exclusive telephony use between human client(s) and representative(s), including express inclusion for use over various network mediums and transport mechanisms including intranet(s), Internet(s), public telephone network(s), wide area distributed computing environments, and Internet telephony services. See Column 8, Lines 8-30. Lastly, Foladare expressly detailed notifying the requesting user client that the requested resources had become available in Column 6, Lines 1-4.

While Foladare disclosed the invention substantially as claimed, Foladare did not expressly disclose the measurement and comparison of “available/required resources”, rather, only the binary (yes or no) availability of a particular resource, the human (or computer terminal) representative to which connection was desired. See, inter alia, Column 1, Lines 44-49, and Column 2, Lines 18-27. Also, while Foladare did expressly suggest enabling online services accessible through the server(s) (Column 8, Lines 27-30), Foladare did not expressly mention any particulars of these services, or what this generalized term was meant to encompass. An ordinary artisan would have been motivated to search the related Internet and network services arts to find some examples of these suggested network services usable with the Foladare invention as disclosed, as well as exploring other described variants of the system (e.g., merchant facility utilizing a sole server, server cluster, geographically remote computers, etc., per Foladare, Column 8, Lines 8-18) for direct implementation of the invention on such systems, as suggested.

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In the same art of Internet communications and content delivery, network connection establishment, and request queuing, Jin disclosed teachings relating to performance guarantees, an inherent problem in the networking arts. Additionally, the Jin system also disclosed overload protection (efficient use of computer(s) for response to client requests) and quantified, deterministic decision methodology for client request queuing resulting in acceptance, deferral, or denial of service fulfillment. See inter alia, Column 2, Lines 24-55. The environment of the Jin system was very similar to the Foladare system; Jin disclosed an interconnect network coupling the client(s) to a data access networking system providing data delivery services. See Figure 1, Column 3, Lines 18-26, and Column 4, Lines 10-19. Specifically, the system provided data delivery services to requesting clients over an intranet or global WAN Internet. See Column 4, Lines 36-49. The system utilized an admission control policy serving to provide responses to requesting clients only when appropriate resources were available. See Column 6, Line 38 through Column 7, Line 15. Lastly, the Jin system used a "submission queue", where requests for services were forwarded ("queuing") after determination of sufficient resources was decided. See Column 8, Lines 46-65.

Jin also expressly suggested that any type of queuing arrangement could have been effected, in addition to other methods already well known and established in the art. See Column 8, Lines 59-62. This explicit suggestion would have been motivated an ordinary artisan to explore the various request queuing arts in order to implement a suitable queuing arrangement.

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In these arts, Madduri disclosed managing access to distributed network resource objects though use of a queuing system using a “camp-on” table. See Abstract. When the suitable requested resource(s) were available, access was immediately granted. See Column 2, Lines 24-44. When the object was currently locked, the client user request was queued, and the system operated to periodically check availability of the object (or be alerted to changes in the object status automatically). See Column 2, Lines 37-40. Most noteworthy and relevant to the claimed invention were the steps (60), (62), and (64), in Figure 3. These steps functioned to implement the option of “camping-on” for subsequent access to the resource. The process ended with a message to the user “object locked”, reflecting non-availability of the resource. Of course, should the user opt to “camp-on”, some indication of this status for subsequent operation would have been obvious. Rarely do computing systems not provide a result report subsequent to user selection. Upon change of the lock status to an available condition (i.e., unlocked), user(s) were notified, and subsequent access to the object was permitted. See Figures 3 and 4, and Column 2, Lines 40-44.

All of the applied teachings (i.e., Foladare, Jin, and Madduri) notified the client of the status of the client user request(s), and the status of the availability of a requested network resource. All of these teachings provided queuing of client requests in one form or another. However, none of the teachings expressly recite what was sent to each client user at the time of queuing, i.e., a notification of queuing, that is, subsequent processing of the request. It would have been obvious to the ordinary artisan at the time the invention was made to report the status

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of the request queuing process to the client user. Since all the systems functioned to queue requests, and all the teachings provide the client user the opportunity to continue when resource(s) were not currently available (optionally omitted, see MPEP §2144.04(II)). Thus, functionality to report that a choice to continue has been made/received (i.e., subsequent processing will occur), would have been obvious as a matter of design choice during construction and routine operation of the system. As stated above, rarely did a selection made directly by a user of a copmuter system occur without some kind of response from the system the client user was interacting with.

The combined system of Foladare, Jin, and Madduri, renders obvious the claimed invention as set forth in claims 21-32, as follows:

(Claim 21)

a. *Receiving a first request for services of a server from a user through the communication network*, was taught by Foladare, inter alia, in Column 2, Lines 10-3, and Column 5, Lines 44-61, and Column 8, Lines 24-30, was taught by Jin, inter alia, in Column 7, Lines 16-23, and was taught by Madduri, inter alia, in Column 4, Lines 1-7.

b. *Signaling the user, if insufficient server resources are available to process the request, wherein the user is queued for subsequent notification*, was taught by the combination of teaching provided by Foladare in Column 1, Lines 44-49, and Column 6, Lines 1-4, Jin, inter alia, in Column 7, Lines 7-11, Madduri, inter alia, in Column 5, Lines 29-37, and general knowledge of ordinary artisans in the art related directly to actively reporting the status/outcome

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of an action selected by a client user. Also note that this claim limitation does not necessarily infer that the user client is signaled in regard to the state/presence/outcome of the queuing process as argued by Applicant in the Response, Paper #3.

c. *Notifying the user once a sufficient amount of resources are available to process the request*, was expressly taught by Foladare, inter alia, in Column 6, Lines 1-8, and Madduri, Column 6, Lines 1-5.

(Claim 22)

d. *Establishing a connection between the user and the server, if sufficient resources are available to process the request*, was taught by Foladare in Column 3, Line 63 through Column 4, Line 14, and Column 6, Lines 1-17, was taught by Jin, inter alia, in Column 2, Lines 28-43, Column 6, Lines 45-47, and Column 8, Lines 46-50, was taught by Madduri in Column 5, Lines 6-8, as well as being inherent in a client-server type request-response networking environment.

(Claim 23)

e. *Connection is established only if a second request is received from the user within a predetermined time after notification [of sufficient resources]*, was taught by Foladare in Column 4, Lines 8-29, and Column 6, Lines 1-16.

(Claim 24)

f. *Queuing users on an order of requests basis*, was taught by Jin in Column 8, Lines 57-59, through use of a first-in-first-out (FIFO) submission queue.

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(Claim 25)

g. *Queuing users on a basis other than order of requests*, was substantially taught by Jin in Column 8, Lines 55-65, since the open-ended implementation of the queue was expressly stated, and prioritizing order of queue entries was notoriously well known in the art. This was most commonly seen in systems providing services to “gold” (or higher paying) members before granting access/requests from ordinary, non-special members; this was typically implemented by a simple queue management program by comparing IP addresses or other user identifier to a profile database specifying who gets what type of service.

(Claim 26)

h. *Communication network is [] one of a LAN, and intranet, and an Internet*, was taught by Foladare in Column 3, Lines 2-8, was taught by Jin in Column 3, Lines 18-26, and Column 4, Lines 10-19, and was taught by Madduri in Column 3, Lines 41-67.

(Claim 27)

i. *Communication network comprises a telephone line*, was taught by Foladare in Column 3, Lines 2-8, and was taught by Jin in Column 3, Lines 18-26, and Column 4, Lines 10-19. Also note the express teachings of Foladare providing coupling of the “remote user” and the customer service representative using telephony, as well as the notoriously well known prior art usage of modems for data communications (e.g., Internet connections) over standard PSTN network(s).

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(Claim 28)

j. *Receiving requests from a plurality of remote devices for access to a communication network*, was taught by Foladare in Column 2, Lines 28-48, and was taught by Jin in Column 4, Lines 36-49. Access to an arbitrary “internal” network resource equated to access to the communication network (network supplying communication).

k. *Establishing connections between the communication network and a first group of the remote devices*, was taught by Jin in Column 4, Lines 10-49. The first user clients to request connections (the requests already in the queue(s), or previously established), were provided connections.

l. *Sending a signal to the remaining remote devices for which a connection is not established indicating that a connection was not established*, was taught by Foladare in Column 1, Lines 44-47, was taught by Jin in Column 7, Lines 7-11, and was taught by Madduri in Column 5, Lines 33-36.

m. *Queuing at least some of the remaining remote devices for subsequent notification of communication network availability*, was taught by the combination of teaching provided by Foladare in Column 1, Lines 44-49, and Column 6, Lines 1-4, Jin, inter alia, in Column 7, Lines 7-11, and Column 9, Line 64 through Column 10, Line 8, Madduri, inter alia, in Column 5, Lines 29-37, and general knowledge of ordinary artisans in the art related directly to actively reporting the status/outcome of an action selected by a client user. This was evident in the prior art as “deferring”, described as known technology by Jin at Column 9, Lines 54-63.

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(Claim 29)

n. *Establishing a connection between the communication network and a selected one of the queued remote devices, if the selected queued remote device responds to the subsequent notification*, was taught by Jin, inter alia, in Column 7, Lines 58-60. As clearly disclosed by Jin, all requests which were submitted to the submission queue (103), were subsequently processed by application (106). Since the Jin invention dealt directly with which requests were added to the submission queue, and this application was an arbitrary network service, the described invention as set forth in this claim is fully met by the teachings. Also see, Foladare, Column 4, Lines 8-29, and Column 6, Lines 1-27, and Madduri, Column 5, Lines 11-27.

(Claim 30)

o. *Receiving requests by remote systems to access the web server*, was taught by Foladare in Column 8, Lines 24-30, was taught by Jin in Column 5, Lines 51-52, and was taught by Madduri in Column 4, Lines 1-4.

p. *Establishing connections between the web server and some of the remote systems*, was taught by Jin, inter alia, in Column 6, Lines 45-47.

q. *Sending a message to the remaining remote systems that a connection is not available*, was taught by Foladare in Column 1, Lines 44-47, was taught by Jin in Column 7, Lines 7-15, and was taught by Madduri in Column 5, Lines 1-10.

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r. *Queuing at least one of the remaining remote systems for subsequent notification of web server availability*, was taught by the combination of teaching provided by Foladare in Column 1, Lines 44-49, and Column 6, Lines 1-4, Jin, inter alia, in Column 7, Lines 7-11, and Column 9, Line 64 through Column 10, Line 8, Madduri, inter alia, in Column 5, Lines 1-10, and Column 5, Lines 29-37, and general knowledge of ordinary artisans in the art related directly to actively reporting the status/outcome of an action selected by a client user. Also note that this claim limitation does not necessarily infer that the user client is signaled in regard to the state/presence/outcome of the queuing process as argued by Applicant in the Response, Paper #3.

(Claim 31)

s. *Remaining remote systems are queued based on an Internet Protocol (IP) address of the remote system*, was disclosed by Jin in Column 8, Lines 49-50. Since the requests themselves were queued, and the requests contained IP addresses (in order to respond/route data to the requesting client), the remote system requests were queued with inclusion of IP addresses.

(Claim 32)

t. *Establishing a connection with a selected one of the remaining remote systems, if the selected remote system responds to the subsequent notification*, was taught by Foladare, inter alia, in Column 4, Lines 8-29, and Column 6, Lines 1-16.

The combination of the Foladare, Jin, and Madduri systems and methods would have been obvious to one of ordinary skill in the art at the time the invention was made, since Foladare

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directly suggested the use of the system for network information services (Foladare, Column 8, Lines 27-30), and Jin dealt directly with a data service system with overload protection (Jin, Column 2, Lines 24-27). Further Madduri provided a suitable queuing methodology suggested by Jin in Column 8, Lines 59-62. The systems and methods of Jin and Madduri also addressed the same problems as the Foladare system; if resources were unavailable (no representatives), some type of queuing system for requesting customers was clearly required, so that the customers were served in a timely fashion, avoiding an overload situation. See Foladare, Column 3, Lines 30-36, Jin, Column 1, Line 53 through Column 2, Line 8, and Madduri, Column 2, Lines 24-44. Thus, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the system of Foladare with the overload protection and data content delivery mechanisms of Jin, and the queuing locked object network service access controlling and maintenance methodology set forth by Madduri in order to result in a more efficient system which provided data network services upon user request without entering an overload condition, providing customers/consumers with active, current notification of request status, and active deference/delay of access requests as to provide requesters with the information requested without blank, outright refusal of service requests.

Claims 21-32 are rejected.

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Response to Arguments

7. Applicant's arguments filed 9/10/2002 have been fully considered but they are not persuasive.

a. Applicant argues Jin did not teach or suggest queuing the remote user for subsequent notification of server availability. See Response, Paper #7, Page 6, Lines 18-19. It is the Examiner's contention that a typical client-server request-response relationship generally resulted in an actual server service upon receipt of a client request, indicating "server availability", since, after all, the server was serving the client with data/printing/etc. A delay in processing the request, e.g., in a queue, provided the claimed queuing a remote user for subsequent notification of server availability, since when the server responds, it is available. Jin expressly taught queuing user client requests for subsequent submission for service. Jin further taught that the "rejection processor" (149) optionally was configured to notify the requester that the request has been rejected. See Column 10, Lines 24-33. Jin also expressly taught the use of a best effort queue within the scheduler for optional submission of the request, and the deference of request(s) using known technology. See Column 9, Lines 54-63. Thus, the provision for notification that the request had been queued for subsequent processing would have been a matter of design choice by the implementer. Since Jin clearly showed that message(s) were conveyed to the user client regarding status of the request, the notification of queuing and subsequent processing would have been an obvious extension. Further, Madduri expressly taught the notification of request status to a user when the service is unavailable (Figure 3, reference numeral 64) and

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when the service becomes available (Figure 4, reference numeral 76), both within a request queuing system. Thus, the distinction between the claimed invention and the prior art is not deemed persuasive in regard to subsequent notification to the user client of server availability.

b. Applicant argues Foladare did not teach or suggest queuing users for notification of server availability. The thrust of this argument relies on the emphasis on server(s), rather than people. See Response, Paper #3, Page 7, Lines 3-6. Examiner notes Foladare, Column 8, Lines 27-30, previously cited, applied, and detailed. This section of Foladare specifically suggests use of the invention, i.e., “establish[ing] communication link[s]” for “on-line information provided on [a] server...relat[ing] to various services.” The use of the merchant/customer and company representative(s) was the provided embodiment of the invention, which functioned directly to establish logical connection(s) over a packet switched network, optionally incorporating Internet telephony (also requiring server functionality, availability, interaction, and connection). See Foladare, Column 8, Lines 19-26. Lastly, Column 6, Lines 1-27, expressly detailed functionality at the time of availability, stating explicitly, “a message informing the customer that the customer representative is available and asking the customer whether or not the customer would like to continue is overlayed on the display of the client” (Column 6, Lines 1-4). Since user requests were being queued for processing, and subsequent notification of availability was detailed, queuing users for notification of [server] availability was fully described. Also see, Madduri, Column 6, Lines 18-26, where this functionality was expressly detailed and disclosed as beneficial to the

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processing system at large. Thus, distinguishing the currently claimed invention through arguing lack of server presence in the Foadare teachings is not considered persuasive.

8. Lastly, Applicant's arguments with respect to the pending claims have been considered, but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marc Thompson whose telephone number is (703) 308-6750. The Examiner can normally be reached on Monday-Friday from 9am to 4pm.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Powell, can be reached at (703) 305-9703.


The fax phone numbers for the organization where this application is assigned are as follows:

(703) 746-7238	(After Final Communications only)
(703) 746-7239	(Official Communications)
(703) 746-7240	(for Official Status Inquiries, Draft Communications only)

Inquiries of a general nature relating to the general status of this application or proceeding should be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900.

MDT

Marc D. Thompson
Patent Examiner
Art Unit 2142


MARK POWELL
SUPERVISORY PATENT EXAMINER
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